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ABSTRACT

The document addresses challenges that a developmental and wholistic approach to learning presents in the area of educational screening and evaluation in native communities. The introduction considers the connection between wholistic educational evaluation and alcohol and drug abuse, where to begin, the role of evaluation in learning, and limitations of existing models. The first section reviews the need for evaluation, qualifications of evaluators, and components of evaluation. Next, aspects of evaluating individual students are discussed: screens, pre-school screening process, screening at regular intervals, screening to break a cycle, in-school screening, selection of screening instruments, and areas in which screening is required. Another section examines facility evaluation. A section on curriculum evaluation includes a discussion of what is curriculum, message of the hidden curriculum, evaluating curriculum materials, wholistic curriculum, and sample questions. A section on personnel evaluation focuses on the teacher as hidden curriculum, connection with the community, the teacher as curriculum developer, and sample questions. A section on evaluating the community context covers participatory community research, counterpart training, evaluating community learning, and sample questions. The final section looks at the evaluation team. Appendices contain sample screens, inventories and devices, and present sample guidelines for evaluating curriculum materials. (NEC)

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WHOLISTIC EDUCATIONAL EVALUATION

FOR COMMUNITY TRANSFORMATION A PREVENTATIVE APPROACH

DEDICATED TO THE GOAL

OF ELIMINATING ALCOHOL AND DRUG ABUSE

IN CANADIAN NATIVE SOCIETIES

BY THE YEAR 2000

This paper has been produced collaboratively by:

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April, 1984

The Four Worlds Development Project is the result of many people's efforts and wisdom. Some were directly involved, others inspired us through their work in education and alcohol and drug abuse prevention.

Direction for this project was set at a conference held in Lethbridge, Alberta in December, 1982. Participants at the conference were native elders, spiritual leaders and professionals of various native communities in North America. Their contributions were framed by their deep commitment to native people and their own, often hard won, experience. To each of therm, we offer our deepest respect and appreciation.

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EDITORIAL NOTE

In English it is impossible to refer to a person without using a pronoun that indicates gender or sex (e.g., he or she, him or her, his or hers). Since there is no special word to refer to a person whose gender is not known, most writers have chosen to use the masculine form in these situations.

This custom of using the masculine form when referring to a person who is not known to be a female, has caused a conspicuous absence of reference to women in English writing.

Thus all of the great ideas and discoveries discussed in English literature are expressed in masculine terms and the reader constantly visualizes males, rather than females, as active participators in the world. Our society's tendency to devalue the role and contributions of women is only augmented by this lack, of picturing women in an active, creative role.

The Four Worlds Development Project has chosen to alternate the use of feminine and masculine pronouns whenever the reference is unspecific. This choice of usage is a deliberate one of avoid the awkwardness of the compound form (he/she; him or her) while at the same time acknowledging the harmful consequences of bowing to a convention that persistently forces its audience to visualize the world as dominated by men and operating on ideas and expressed in masculine terms.

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INTRODUCTION

1. The Connection Between Wholistic Educational Evaluation and Alcohol and Drug Abuse

The connection between wholistic educational evaluation and alcohol and drug abuse prevention and treatment work is found in the underlying philosophic basis of the great learning enterprise called for by native elders, spiritual leaders and professionals across North America.(1)

This great learning enterprise, they said, must systematically educate human beings from the time they are in their mother's womb, until the time they pass out of this world. They also stressed that a two-pronged effort was needed, directed simultaneously toward the healing of individual native people and to the families and communities from which they come. This education and consequently development enterprise would have to be solidly grounded in a native cultural understanding of the nature and purpose of human existence and the means of preserving and enhancing human well-being.

At the heart of this strategy lies the conviction that human development is fundamentally a learning process. It unfolds from within a person or a people. As native people learn to respond creatively and positively from within the framework of their own cultural system to the challenges of human development in this century, the root causes of alcohol and drug abuse will begin to disappear.

Health is the condition of optimum well-being. It has spiritual, cultural, social, economic, political, psycho-motor, cognitive, volitional and psychological dimensions. But even it all is well in each of these distinct domains, they all must be balanced and integrated into the life of one person, one family, one community or one nation.

If I am to be "healthy", I must become a competent actor in every one of these areas and I must learn to balance and integrate them in my own life, as well as in interaction with my family and my community. This learning is what traditional native education was all about. From time immemorial, generation after generation of native people were helped to learn what they needed to know in order to survive in many different, and sometimes extremely difficult, environments.

Today the very survival of the native people is at stake. Entire generations have not learned and are not learning what they need to know in order to survive. Alcohol and drug abuse serve the superficially useful function of dulling the pain, of clouding our vision so that we need not be confronted in every dimension of our lives with the frightening truth that we have nearly forgotten how to survive in this land.

2. Where Do We Begin?

The elders were very clear on this point. We must begin with the children. We must center our energies on the raising up of a generation of healthy, vigorous, creative, courageous, virtuous people who are free from the burden of alcohol and drug abuse.

In order to do this, we must develop a curriculum (i.e., an educational plan and a process) that begins by educating young girls and boys before they are parents, that places great stress on learning during pregnancy (of the parents and of the child while still in the womb of its mother), and that facilitates optimum human development in the formative years. The curriculum must also transform schools into community learning centers which are actually promoting learning for human development. Not only must the school program address the students per se, it must also reach out into the families, and into the economic and cultural life of the community. Its goal must be to promote well-being (i.e., health) in the spiritual, cultural, social, economic, political, psychomotor, volitional, cognitive and psychological dimensions of the lives of the people it serves.

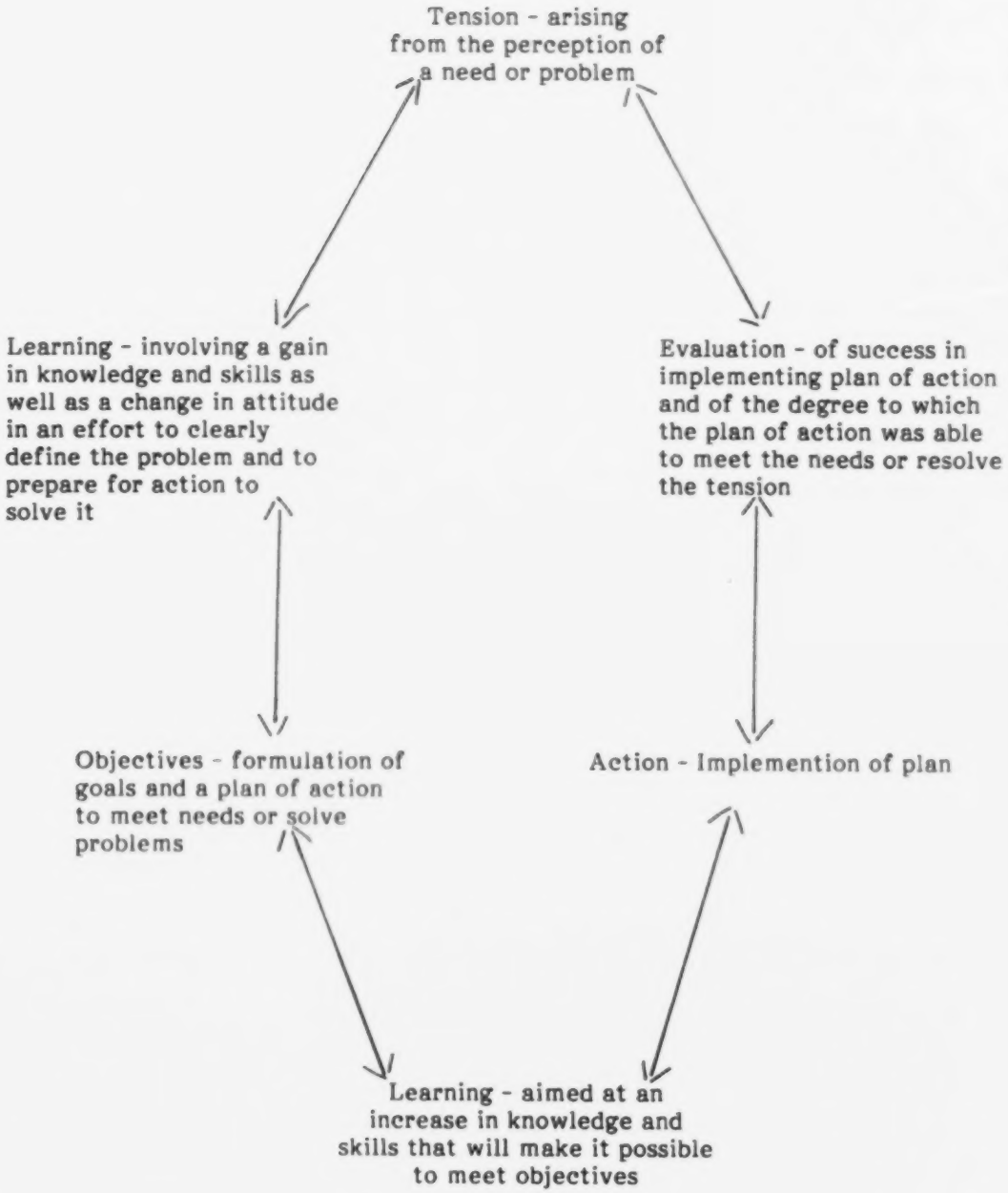
It is impossible for any enterprise to promote human well-being unless it has a clear vision of what a human being is, and how a state of well-being comes about. It is this fundamental vision that has been missing from most health and education related efforts in native communities.

It is to this vision of what a human being is and of the transforming power of individual and societal learning that a wholistic educational evaluation must address itself. To what extent are our educational institutions fostering the growth of human potential? To what extent are they centers of learning for community matters in any true sense? To what extent are they counteracting the forces that prevent individuals or a people as a whole from responding creatively and with a sense of purpose to a world they understand and help to shape? To what extent are they fostering the kind of learning that will help to eliminate the root causes of alcohol and drug abuse? These are some of the

basic questions to which any evaluation of an educational system must ultimately address itself.

3. The Role of Evaluation in Learning

One of the components of any learning process is evaluation. The following model[2] of how learning takes place, especially such learning as is aimed at in community transformation, is presented to provide a reference point for discussion about the role of evaluation in learning:


Tension - arising from the perception of a need or problem
Learning - involving a gain in knowledge and skills as well as a change in attitude in an effort to clearly define the problem and to prepare for action to solve it
Evaluation - of success in implementing plan of action and of the degree to which the plan of action was able to meet the needs or resolve the tension
Objectives - formulation of goals and a plan of action to meet needs or solve problems
Action - Implemention of plan
Learning - aimed at an increase in knowledge and skills that will make it possible to meet objectives

What this model illustrates is the circular nature of the process of growth and transformation. One can enter the circle at any point; that is, an evaluation of an individual or a system may make the need for change clear and thus begin the process of transformation, or evaluation may serve as a catalyst to further action by assessing the success of a plan of action already in process. In either case, evaluation takes place within the context of the particular community undergoing growth and change. It is not the arbitrary imposition of standards from outside that context nor does it represent an endpoint in a linear progression of events.

Although this model was developed to discuss community learning, it can also be usefully applied to learning by individuals. Here too evaluation should be an integral part of a continuous process of growth and should occur within the context of the real-life activities of that person.

4. Limitations of Existing Evaluation Models

Many of the existing evaluation and screening procedures, especially those aimed at the individual, are part of a view of the world that is not consistent with the wholistic model which forms the basis of Four Worlds Development Project thinking. A striking example of this is the assumption that one can define a standard or normal person and then compare each person tested to that standard or norm. Any differences between the norm and the person being tested are defined either as deficiencies or exceptionalities and serve to define the person with these characteristics as eligible for special programs of remediation and enrichment.

An interesting examination of the historical roots of the "standardized" person and of the limitations of such a view of man can be found in Alvin Toffler's The Third Wave.(3) A Wholistic, developmental model of learning and transformation would seem to call into question this very basic assumption of almost all the currently available tests and screens for the individual. To be consistent with this wholistic view of man, screening and testing instruments must arise from a philosophical base which takes into account the complex interrelationships between the four aspects of the individual (the physical, mental, emotional and spiritual) and the central function of will in actualizing human potential.(4)

Another serious limitation of most current evaluation and screening procedures is that they focus on only one component of a highly interactive and complex system. This practice gives rise to an often inadvertent and unquestioned tendency to blame the "victim". For example, in educational evaluations, it is the individual student (and often only one aspect of that student) who is tested most thoroughly. Any inadequacies that surface because of the evaluation are ascribed to that student. Remediation is then applied to the student to correct those inadequacies. Only rarely are the educational facility, the staff, the curriculum materials, the educational philosophy, etc., tested or evaluated in any systematic and on-going way.

The emphasis on remediation as an outcome of the evaluation process is another area that can come into conflict with a wholistic and developmental model of learning. Remediation as it is most often currently applied implies that the individual who does not meet the standard or norm is lacking in certain specific skills which can be isolated and then focused on for intensive learning. This

model of remediation is similar to the model of intervention found in many alcohol and drug abuse programs. It does not aim at transforming the context in which certain behavior arises, but rather it de-contextualizes the behavior (that is, isolates it from its functional use) and attempts to produce mastery of the component that was seen to be inadequate. While remediation has value in the sense that a hearing problem can be remedied through the use of a hearing aid, it cannot form the basis of a wholistic approach to problem solving or human learning.

A developmental and wholistic approach to evaluation also demands a new look at the notion of error. Much testing is done with a view to discovering errors. These errors are then used as a basis for categorization (as in assigning I.Q. scores or grades in subject areas) or for remediation measures aimed at eliminating future errors. Research in the area of developmental learning (language acquisition, for example) has clearly demonstrated that the learner makes successively more accurate approximations (or errors) of the target behavior. Errors are the application of an imperfect theory of how a particular system (e.g., reading, spoken language) works. These errors are not random; they arise from the over or undergeneralization of an hypothesis. These errors are eliminated, not by intervention from the outside, but rather by a self-regulatory process which is informed by the world in which the learner lives. It is the learner who pays selective attention to the data he has available to him. Most remedial programs are at limiting the data in an attempt to focus the learner on a particular skill. This is often unsuccessful because the learner needs the entire range of data (the context) normally available to him to formulate an hypothesis about how to handle a specific instance. The view that error should be accepted as an indicator that learning is taking place rather

than that learning has been blocked presents serious questions to our present evaluation procedures. Diagnostic testing in a wholistic scheme is aimed at discovering the hypothesis the learner is presently using and where that hypothesis is inadequate to the successful completion of certain purposes or intents.

By raising some of the challenges that a developmental and wholistic approach to learning must present to the area of screening and evaluation, it is hoped that this paper will provide a basis for further discussion and research. The intent is not to provide any sort of authoritative or definitive statement on this issue but rather to raise the kinds of questions that will facilitate more useful evaluation procedures for native communities. While most of the issues raised are discussed primarily in connection with the needs and circumstances of native communities, it is our belief that these same issues can be applied with equal benefit to a great many other groups of people and educational institutions.

EDUCATIONAL EVALUATION

1. The Need for Educational Evaluation

In our close collaboration with native community leaders and elders, it has become increasingly clear that one of the major aspects of communities that must change is the system of education that seeks to serve the learning needs of native children.(5) Rather than provide the context for meaningful learning, schools are after a source of frustration for most native students. Schools which exist outside of the context of community life, which promote failure and which rob children of their cultural identity must ultimately contribute significantly to alcohol and drug abuse in native communities. The relative lack of educational achievement of native children in the Canadian school system is well documented in statistics such as the following:

(a) The percentage of native students completing high school is less than one quarter that of the national rate;

(b) while total secondary education enrollment has more than doubled since 1965, the proportion of Indian students has been steadily declining since 1972-73;

(c) enrollment of native students in universities is one half the national level.(6)

Simply stated, educational evaluation is the process by which we determine whether a particular educational system, or component(s) of that system, are

meeting the needs of its consumers: the students, teachers, administrators, parents and community.

Before we can know whether or not an educational system is meeting the needs of its consumers, we must have a clear picture of what those needs are. Evaluation includes assessment of the consumers' needs. This can be achieved by identifying the knowledge, skills and attitudes (including the goals and objectives) of the consumers.

Additionally, once we have assessed the knowledge, skills and attitudes of the consumers at one point in time, we have this information to refer back to at a later date to see if there has been progress towards the goals and objectives of the system. Evaluation thus provides a baseline or reference point for future evaluations.

In identifying those factors which interfere with the system's ability to meet its consumers' needs, evaluation provides the data for determining manpower, material, facility, and financial requirements.

2. Qualifications of Evaluators

In order to accomplish all this the evaluators need to have a profound understanding of learning and human development and all those factors which influence it. Ideally, those who read the evaluation should have an equal understanding, or should be helped towards that understanding, by either the process of evaluation or the evaluation document itself.

3. Components of Evaluation

In order that the educational program reflect the goals, needs, desires and plans of the community, the evaluation should include strategies for identifying community understanding and direction.

It is our view that adequate educational evaluation in native communities requires the following components:

(a) Evaluating the individual student

- (i) Perceptual competence,
- (ii) Psychomotor competence,
- (iii) Cognitive competence,
- (iv) Affective competence,
- (v) Volitional competence,
- (vi) Moral competence.

(b) Evaluating the Educational Facilities

- (i) Evaluating the site,
- (ii) Evaluating the buildings.

(c) Evaluating the Curriculum

- (i) The hidden curriculum,
- (ii) The curriculum content.

(d) Evaluating the Personnel

(i) The teacher as curriculum,

(ii) Connection with the community,

(iii) The teacher as curriculum developer.

(e) Evaluating the Community Context

(i) Participatory community research,

(ii) Counterpart training,

(iii) Community learning.

EVALUATING THE INDIVIDUAL STUDENT

The tools currently available for assessing student characteristics (i.e., the various screens or tests developed by social scientists) provide an incomplete picture of the human beings they are designed to assess. Our study of traditional native beliefs and of contemporary scientific works on the subjects of human nature and learning theory has led us to use the medicine wheel as a symbol or metaphor to describe the essential aspects of a human being.

The medicine wheel is basically a circle with the four cardinal (or compass) points marked on it. This ancient symbol has been used by almost all the native tribes of North and South America as a metaphor to describe many ideas. The great lesson of the medicine wheel is that separate entities, when seen in the light of the universe, are always equal and necessary parts of a larger whole.

When used as a metaphor to describe a human being, the four cardinal points of the wheel can be labelled with the four essential aspects of human nature: the physical, the affective or emotional, the cognitive or mental, and the spiritual.

At the intersection of these four points we place the human will or volition, as it is a force that must be engaged if actualization or development within these four areas is to take place.

Just as a physical or material wheel is defined by its capacity to roll or move, the medicine wheel is not meant to present a static picture of a human being. Every human being has the capacity to grow and change through the active application of her volition. For human beings to grow and change so that they will be developing or

actualizing their potential in a positive way, they need a vision of what human beings can become. This vision can then become like a magnet that pulls to it those capacities we have that will help us bring our vision of what is possible into being.

Within this model of human learning and development, the role of evaluation would be many-faceted. It would have to assess the development of the individual in the four essential aspects of her being: physical, emotional, mental and spiritual as well as her capacity to use volition for her own continued development. Equally important, however, would be the firm grounding of the evaluation process in a vision of what human potential is. Present-day tests operate by looking in the rear-view mirror; that is, they measure the capacity of an individual by comparing her to what others have done in the past (or a norm). Difficult as it may seem to be to develop tests which are based on a vision of what is possible rather than on what has already been done, this process, we believe, is an essential one if evaluation is to play a catalytic role in the enfoldment of human potential. Significant attempts to investigate a vision of what is possible in terms of human development can be found in the works of Joseph Chilton Pearce[7] and Fritjof Capra.[8]

This model of evaluation would not be complete, however, without a discussion of the importance of taking into account the culture of the individual being tested. Culture is to human beings what water is to fish. It is the world we live in, the structures we use to make sense of the flood of sensory stimulation we constantly experience.

In our view, there is no such thing as a culture-free test. To say something is culture-free is to say that it has no standpoint or reference point. It does not seem possible that the developer(s) of a test could be free of a frame of reference, for such a condition would rob them of any systematic means of making sense of the world

around them. Implicit in the content or process of any evaluation are notions of time and space, for example, and these are both highly culture-specific.

Language, a very significant component of culture, also plays an important part in the content and process of evaluation procedures. Even where tests are language-free, that is, they use geometric shapes or symbols other than language, the testing process uses language and the organization of the symbols implies an orientation that often arises from the use of language (e.g., the left-to-right, top-to-bottom orientation of western languages).

One obvious application here is that, wherever possible, developmental testing should be done in the first language of the individual being tested. The other implication is the tremendous need for research in the area of testing that will help educators understand the culturally specific nature of the expression of learning and development in all the aspects of a human being.

Evaluation procedures that can play this type of wholistic role in assessing an individual's physical, mental, emotional, spiritual and volitional development while at the same time helping to articulate a catalytic vision of human potential will have much to contribute to the elimination of alcohol and drug abuse. The role of a healthy, positive self-image in eliminating the root causes of alcohol and drug abuse has been recognized by educators and health workers for some time.(9)

Educational evaluation has, as one of its areas of concern, the early identification of a number of potentially problematic factors (such as health, nutrition, perceptual impairments, emotional maladjustments, developmental lags, etc.) that are related to learning. Problems in these areas can prevent children from achieving in any school

system, and the resulting low skill and self-esteem levels can contribute directly to alcohol and drug abuse behaviors in later years. These low skill and self-esteem levels become a part of a vicious cycle of self-fulfilling prophecy. The child who suffers from the problematic factors listed above soon learns that he is not expected to succeed and this view of his own potential is internalized and acted on.

It is highly desirable that there be a systematic process for the early detection of any possible conditions which might interfere with children's abilities to learn in an optimum way. (In this instance, optimum can be taken to mean the ability to learn with no excessive expenditure of physical, intellectual, emotional or spiritual energies.) The following discussion of screens and other tests is intended to provide an exploration of currently available evaluation instruments which have been developed in an attempt to systematically and thoroughly assess the individual's characteristics which are related to his optimum participation in his education system.

1. Screens

Many instruments have been developed which detect conditions that are likely to interfere with learning. These instruments are aptly referred to as screens, in that they screen out from a selected population those members in it with certain characteristics.

These instruments, which may consist of mechanical or electrical devices or a series of questions or processes, range from so-called gross screens which simply identify whether there is reason to suspect the presence of a problem in a given area, to highly specific screens which identify the extent, quality, likely

cause, and steps for remediation. For example, a gross screen of a child's hearing ability may suggest that he has impaired hearing. A specific screen would determine the extent of the impairment, whether it is due to a malfunction of the inner or middle ear, and what the nature of the malfunction is (neural, physical, etc.).

2. **Pre-School Screening Process**

An efficient screening program begins with the broadest types of instruments, those designed to access a wide-range of significant physical, intellectual and emotional factors. Those children identified as having abnormalities in any of these areas would then be retested using a more discriminating screen. This process is continued until the extent, nature and implications on normal development of the problem have been isolated and identified.

Currently, the most widely available screening device used on Indian Reserves is the Denver Developmental Screen. Through observation, information gained from the mother, and the completion of simple tasks by the child, it attempts to determine whether certain significant physical and intellectual abilities have developed at the normal rate for children from birth to six years of age.

What constitutes normal in native communities may not be the same as the general norm in the non-native communities from which the test was developed. It is clear that most, if not all, cognitive and developmental screens that now exist are culture-bound; that is, they may not at all be measuring (in the case of native children) what the instrument's designers set out to measure. One clear case of this is in the area of language development. Because native children

speak English as a second language or because they speak a non-standard dialect of English, they are merely being tested for fluency in standard English rather than for language development per se. Also, the content and process of the test conflicts with native children's patterns of language use (e.g., their sense of pragmatics or appropriate language use) and thus cannot assess language development accurately.(10)

Nevertheless, most public health nurses serving native communities are trained in the administration of this wide-ranging screen, and have access to the kit. While it is intended that the nurses administer this screen to all appropriately aged children on the various reserves, in practice the numerous demands or the nurse's skills and time often mean that not all children are screened and that those who are screened are not rescreened on a regular basis. Considering that the clear instructions, simple recording form, and specific guidelines for interpretation make it possible for a non-professional to administer this screen, it is both costly and inefficient to have a professional conduct it.

An extensive, highly suitable and relatively low-cost screening program for reserves could be developed by training either community health representatives or other community members in the administration of these screens. Further research is needed, however, to adapt the existing instruments to the specific life world within which native children develop.

Once a culturally appropriate instrument has been developed, any child found suspect of a problem as a result of the test would require retesting, this time by a trained professional who has also been educated and sensitized to the delicate cultural issues inherent in developmental testing. It is important to realize that

the process of evaluating and refining screening instruments and of educating professionals in the nuances of native culture is as essential to the success of a screening program in native communities as is the administration of the instruments to children.

3. **Screening at Regular Intervals**

It is important that all children be screened on a regular basis as prescribed by the developers of the instrument. For children up to age three, retesting should occur every six months, and after that once a year until age six. In this way, the earliest possible detection of any abnormalities can be achieved. Particular attention should be paid to children who are considered at high risk of physical, intellectual and/or emotional developmental lags or deficiencies; i.e., children of alcoholic parents (possible fetal alcohol syndrome), bottle-fed infants (possible inner ear infections), poverty families (possible nutritional problems), etc., should be regularly and carefully assessed.

4. **Screening to Break a Cycle**

A pre-school screening program such as this would uncover developmental, nutritional and perceptual deficiencies in the early stages of their development. This is crucial since the problems become more complex if they are left undiscovered or unremediated once discovered. The increased complexity will likely mean a more difficult and lengthy process of remediation requiring greater professional and financial resources.

Related to early screening is the need to identify the epidemiology (all those elements contributing to the cause of a problem) of those problems which are endemic (specific to a certain population). For example, many native populations show a high incidence of hearing impairment. An educational evaluation of the children on the Alexander Reserve in Alberta found some degree of hearing impairment in 45% of those tested, for example. Research has identified several contributive factors:

(a) The length and degree of tilt of the ear canal is different among the people of different races. This has an affect on the ease with which the ear can drain in the presence of infection. A relatively short, down-angled canal allows easy drainage thus lessening the chance of damage to the inner ear or ear drum due to the longer presence of the infection and increased pressure. Among North American native people, the ear canal is relatively long and angled upward thus making drainage more difficult.(11)

(b) Feeding infants by bottle deprives them of the anti-bodies found in breast milk, thus making the infant less fit to fight off infections.(12)

(c) Lower health care standards, a fact of life of many reserves, increases the chance and severity of infection.(13)

(d) Poor nutrition, again common on reserves as a result of lack of awareness or low income, makes the body more vulnerable to infection and less adapted to rid itself of infection.(14)

Typically, middle ear infection occurs between the ages of 6 months and 2 years. This is an age of rapid language acquisition. At this time the child should be learning all the sounds of language; its inflections, cadences, grammar, etc. While the inflection is present hearing is impaired and this impairment may become permanent if the inflection is not treated properly and at once. Thus, the natural process of language development may be hindered. Even in those cases where there is no permanent or significant hearing loss, the child's language development can be adversely affected.

If the hearing impairment is not noticed, perhaps because it is slight, the parents may mistakenly see the child as "never doing what they're told" and consider him to be a naughty child. This can lead to interaction patterns in which the misbehavior of the child worsens until it becomes a problem in and of itself.

Upon entering school, the inability of this child to keep up with the class, because of the hearing loss, low language skills and behavior problems, further isolates him from the other children and likely leads to academic and learning problems that could eventually contribute to alcohol and drug abuse behaviors.

In the absence of a process for the early detection of a perceptual problem, this child now has a cluster of competing problems in each of the areas (physical, intellectual, emotional and spiritual) of his life. Identification and remediation of these problems is now an extremely difficult and costly process likely requiring the services of many professionals.

5. In-School Screening

Problems of a developmental or perceptual nature can develop at any age and for a number of reasons. A child may enter school with no history of problems and develop them then, or at a later date, through illness, injury, or through inappropriate teaching strategies. For these reasons it is highly desirable that wide-range screening on a regular basis be continued.

In most cases, if a school child is having great difficulty for no apparent reason, or if the teacher has reason to suspect that the child is experiencing some obstacle to learning, the child may be referred for testing. This referral, however, constitutes a highly informal initial screening process, the usually unstructured observations of the teacher. For example, hearing impairment may be indicated by a child turning her head to one side (that is she may be turning her good ear to the teacher) or by a child intently watching the teacher's face (she may be lip reading). Frequent loss of one's place while reading may indicate a visual problem. Teacher observation in itself is an unsatisfactory screening process since:

(a) not all teachers are equally trained or adept at recognizing these cues;

(b) usually only children with the most severe, and therefore obvious, problems are caught; and

(c) it may take some time for the teacher to catch on to the cue, thereby delaying intervention.

Because of: 1) the limitations of the present informal process for identification of developmental or perceptual problems for school-aged children, 2) the possibility for problems to occur at any age, and 3) the fact that even a quality screening program for pre-school children may fail to uncover a deficiency, it is highly desirable that a regular procedure for in-school screening be instituted. A directory of some of the most widely used screening instruments can be found in Appendix A.

6. Selection of Screening Instruments

Certain criteria need to be met when selecting appropriate screens. Among them are:

(a) Does the screen provide the desired information? Does a specific screen cover the area under examination, for example, hearing?

(b) Is the screen specific enough? Does the screen provide the information required for the particular stage of assessment (gross to specific)?

(c) Has the screen been adjusted to account for cultural differences? If a child lives in an isolated northern community, questions relating to urban-specific information will be invalid. Likewise, if interpretation of the instrument includes judgments based on cultural values, are those values consistent with those of the child's culture?

(d) Are the process and content of the screen valid for the population in question? The question here is not one of cultural appropriateness but

relates more to the age and ability of the population. For example, is a visual test which requires detailed verbal directions and verbal responses suitable for children with low verbal skills?

(e) Does the screen require specialized knowledge to administer and/or interpret and if so, are qualified people available? Some tests require that only professionals administer and interpret them. In some instances, only certain professionals are able to purchase the screens. Usually this is only the case in the more specific screens where diagnosis of the origin and severity of the problem are at issue.

7. **Areas In Which Screening Is Required**

(a) Perceptual Competence

The normal range of teaching/learning strategies is based on the assumption that the children can hear and see well enough to perceive what is going on around them in the classroom setting. In order to assure that this is indeed the case, and to identify those children who have deficiencies in visual and/or auditory perception and are therefore in need of special considerations, each child should be screened for visual and auditory defects.

(b) Psychomotor Competence

This includes an awareness of all the body functions which are under voluntary control and the ability to control these functions in such a way

as to express the purposes or intent of the organism. Young children learn primarily through physical movement and so any impairment on this level has a direct impact on cognitive development. The relationship between movement and the development of speech has been the subject of considerable research, for example.(15) The successful use of many of the learning tools used in schools (e.g., pencils, computer keyboards, books, etc.) depends on psychomotor competence.

(c) Cognitive Competence

This involves the whole range of learning that is commonly focused on in our educational system: learning to read and write, perform mathematical operations, gaining knowledge and skills in the content areas of the curriculum (social studies, science, languages, mathematics, etc.). As the children encounter the world, they develop cognitive structures or ways of organizing information to help them make sense out of what would otherwise be an overwhelming stream of sensory input. The development of cognitive structures that enable a person to live creatively and healthily can be termed cognitive competence. A great many of our current screen and tests are aimed at assessing this area of development.

Cognitive development does not occur in exactly the same way in all individuals. Numerous studies have been conducted showing that different people have different learning perferences or learning styles, for example, preferences in perceptual channels (hearing as opposed to seeing), groupings (individual, small group or large group instruction), motivation (by self, peers, or adult, etc.). Complimentary to this is the preference for

different teaching styles among instructors. Information should be gathered via the evaluation as to the preferred learning and teaching styles among the teachers and students to assure there is a match.(16)

One of the areas of cognitive development that is most crucial to success in an educational system is language. Many native communities speak a non-standard English dialect.(17) This dialect may differ greatly from that of the teacher and the style used in educational materials, such as textbooks. This difference in dialects has been shown to be a negative factor in the educational progress of native children. Therefore, an analysis of language and/or dialect as used in the community should form a part of the evaluation. Another language-related factor significant to education, is the particular language proficiency of each child. Standardized screens exist which measure a child's ability relative to standard English. More significant information is gained from a screen which measures a child's language development relative to the actual use of language in the community. Thus, a comprehensive evaluation should include language sampling and analysis in communities using a non-standard dialect, and the children's language development measured against the community use of language.

(d) Affective Competence

This refers to a human being's capacity to respond to events with feelings or emotions that allow her to develop sound relationships with others and to use experiences to learn how to live more successfully in the future. A person with exaggerated emotions (e.g., frequent bursts of temper) is

unable to use experiences for creative learning. A person who is unable to express emotion (e.g., affection, sorrow) will be equally unable to develop fully. It is well known that we learn much more quickly when our feelings, as well as our mind, are touched. Evaluation and development of affective competence are important parts of education because successful learning contains affective components and because children who are emotionally disturbed cannot learn effectively.

(e) Volitional Competence

Man is a purposeful being. That is to say, he can act with intent upon the world and thus bring potential into being. In this way he is able to influence his environment, his relationships with others and his own process of becoming. As he brings his intentions into being he is able to develop his competence in the perceptual, psychomotor, cognitive, affective, and moral domain. To do this he uses volition or will. The exercise of volition involves the capacity to set goals, to act purposefully so that the goals will be met, to perserve in spite of obstacles, and to complete what has been begun. Competence in this process will obviously have tremendous impact on a person's success in an educational system.

(f) Moral Competence

This refers to a person's capacity to make moral decisions that help her actualize her own potential as well as develop relationships with others that foster the mutual release of human potential.

A listing of some of the screens currently available for testing in the above six areas can be found in Appendix A.

EVALUATING THE FACILITIES

The facilities of an educational system should provide an environment that is safe, healthful, efficient, enduring and attractive. They should meet the current needs of the consumers (students and community) and be flexible enough to accommodate changing needs as they arise. The facilities must not only meet minimum standards of safety and efficiency. They should also be planning to facilitate maximum learning for each student. An example of a thorough evaluation of an education system's facilities can be found in Determining our own Destiny in Education, the Alexander Indian Band's education evaluation.(18)

1. The Site

The site on which the educational institution is built should be accessible to the population it serves. It should be adequately serviced by pure drinking water, a sewage and garbage disposal system, and fire-fighting facilities. The grounds should be large enough to meet recreational needs and landscaped and equipped with safety and aesthetic considerations in mind. Good drainage is essential to help minimize insect populations and muddy play areas. The site should be large enough to allow for future expansion and present buildings should be placed to provide efficient use of the available space.

Playground equipment should be assessed for its durability and safety as well as its adequacy for the number of people it serves. The playground should also be considered in terms of the kinds of interaction it encourages among the children. Questions such as the following need to be considered: Can children choose the kinds of activities they want to participate in without interference

from other children? Does the equipment encourage competitive or cooperative play?

2. **The Main Building(s)**

The buildings should be inspected regularly for safety. The heating and ventilation systems, the electrical system, the plumbing, and the fire extinguishers, alarm and escapes are all components that require this kind of regular checking. Water and sanitation facilities should be adequate to the number of users, easily accessible, and healthful.

As well as meeting building standards in terms of structural design, lighting, temperature, size in proportion to number of users and safety standards, the building should also take into account recent research concerning the effects of the physical environment on human behavior and on the capacity to learn. One example is recent work studying the effects of fluorescent lighting (which emits white noise, a limited spectrum, and often flickers) on behavior, mood and physical health.(19) Full spectrum lightbulbs are now available commercially and their users report a marked positive effect on the above-mentioned problems.

Medical research has revealed that more people are adversely affected by allergies than formerly believed. Air filtration systems are available which dramatically reduce the percentage of pollutants (dust, smoke, pollens, etc.) in the air. Here again, users of these systems report a significant decrease in health and behavior problems.

In the same way that it is important to evaluate the playground in terms of the types of interactions between people it encourages, the arrangement of space in the school buildings must also be looked at. Is it possible for groups of varying sizes to come together? Can individuals work in relative privacy if desired? Are people segregated into homogeneous groups, or is there interaction between the younger and the older, the skilled and the less skilled, the introverted and the extroverted, etc. Can people work on long-term projects without fear of having their work disturbed? Can people pursue their interests or are they herded from activity at activity on the basis of administrative decisions? These questions apply equally to staff and students and all of them can be affected by the physical layout of the building.

The furniture and equipment should also be evaluated in terms of their durability, their functionality, their flexibility, their appropriateness for the population they serve, etc. Too often the furniture and equipment dictate which type of activities can be engaged in and what type of interaction patterns are possible between people rather than being viewed as tools to serve an educational purpose. An assessment of this aspect of the facilities will also be discussed in the section dealing with the evaluation of the curriculum.

The buildings should also be assessed in terms of their maintenance standards, their maintenance equipment and supplies, and the ease and lack of expense with which they can be kept clean, safe and attractive.

An orderly and attractive environment in conductive to more effective learning, but it must be remembered that both beauty and order and culture-bound concepts. The people who use the educational facility should feel a sense

of ownership over it and should feel at home in it. Learning is more effective when the environment in which it occurs provides touchpoints with the rest of a person's life. The facilities must not be viewed merely in terms of their functions but also in terms of their effect as a total environment.

EVALUATING THE CURRICULUM

1. What is Curriculum?

The progress of students is most often assessed in relation to their ability to succeed in the context of the school's curriculum. The curriculum itself, both its content and its process, must therefore also be open to examination and evaluation.

In a wholistic model of education, curriculum refers to everything that the student learns. Commonly the word curriculum has been used to describe the program that the staff of an educational institution is implementing in a conscious way. What the students learn from the educational program is, however, only a small part of what they learn. It is, in fact, the part that is often forgotten within a short time after it is learned. What is not forgotten is what is learned about one's own identity and role, and the identity and role of others in the program. How people treat each other and their environment, and the attitudes, values and feelings that are encountered are also not forgotten.

This is what is sometimes called the hidden curriculum because people experience these things without realizing how much they are learning. The hidden curriculum is learned on the playgrounds and in the hallways. It is learned from the way the teacher manages student behavior and from the way the desks are arranged. It is learned through the attitudes of parents and other community members about the school and it is these very things, learned through the hidden curriculum, that are likely to influence a person's identity, sense of worth and view of the world. These factors will have a direct connection with later or concurrent alcohol and drug abuse.(20)

Because the hidden curriculum is something we so rarely think about and almost never question, let's pause for a moment and reflect on what is being learned in most educational programs today. This reflection should help us formulate some examples of the types of questions that need to be asked in a wholistic evaluation of curriculum.

2. The Message of the Hidden Curriculum

The most powerful message of the hidden curriculum in our present school system is that those who succeed in school are the elite. Moreover, they deserve to be the elite because they have what it takes to succeed. Success in school becomes a stringent criteria for determining the worth of a person. Of course there are always people who achieve success without a great deal of formal schooling, but usually one of their chief sources of pride is the fact that they "made it" without education. Thus, their success in a way serves to strengthen the notion that education is a prerequisite to success. The exception only strengthens the rule.

Students in school also learn that what is worth knowing is that which is taught in academic institutions. Traditional knowledge is devalued as primitive. Those learning experiences which occur outside of school (ceremony, bush survival skills, stories and legends, etc.) and which should be a reference point and a context for all other learning, are treated as incidental and insignificant.

Students also learn that decisions are made by a few people who hold positions of authority and power. These decisions are self-referential; that is, the people who make them do not need to justify them in terms of the students and the

community as a whole, but only in terms of their own philosophy, values and beliefs. They are empowered to act for the good of everyone else.

Highly competitive examinations and approaches to day-to-day class work teach that everyone should make it on their own. Each individual is responsible for herself only. Those who do not succeed in this process are only to be pitied for their inferior worth. These competitive programs also encourage rote learning and discourage any departure from established texts or any innovation dialogue between students, their teachers, and the needs of the community.

The form that schooling takes often conflicts with on-going community life. It disrupts hunting and trapping or agricultural patterns. It has no relationship to ceremonial life and little to changing seasons. It does not deal with tragedy or celebration.

For native students attendance at boarding schools in particular, but in any school to some extent, means leaving a small house, a close extended family and the flow of life in the community, to spend a large part of one's life in a large, institutionalized structure. Life in these institutions is mechanically routinized and the individual is both nothing (reduced to a face in the crowd) and everything (in that her success will be measured by her individual achievement only). The impact of such a change is nothing short of traumatic for many young people.

The student is uprooted from her own community and culture. She is expected to speak a different language or dialect than she does at home. She learns by her very separation from the people who have such high hopes for her (her

parents and other community members) that she is different from them and can never really be part of them again. She sometimes grows up unable to communicate with the "ordinary" people in the community and becomes in this way a stranger in her own land. She learns to be ashamed of her family and sometimes even comes to view them solely as potential dependents whom she has an obligation to support when she secures a job.

3. Evaluating Curriculum Materials

An evaluation of the curriculum of an educational institution must also include a look at the programs, materials, and textbooks being used. An extremely vital component of these materials is their cultural bias. Appendix B provides two samples of guidelines that have been developed for assessing the cultural bias and historical accuracy of curriculum programs in terms of their use in native communities.

As well as the type of evaluation described in these guidelines, textbooks and programs need to be evaluated in terms of their relevancy, general appropriateness and quantity relative to the number, age and skill level of the school population and the educational philosophy of the curriculum. A factor adversely affecting the usefulness of many curriculum programs and materials is their highly abstract and symbolic nature. The proliferation of student handouts at the expense of hands-on, experiential materials is a serious flaw in most educational programs. The vital importance of direct sensory experience with each new concept encountered in the learning process is described in Joseph Chilton Pearce's Magical Child.(21) This work outlines as well some of the devastating consequences of premature abstraction on the future develop-

ment of intelligence. The current trend to introduce formal schooling at earlier and earlier ages and to value those programs which push for early literacy is called into question by recent research into the development of human intelligence. In view of these considerations, an evaluation of curriculum must assess its contribution to long-term growth and development as well as its short-term contribution to an increase in knowledge and skills.

4. A Wholistic Curriculum

Thus, we see that in a wholistic model of education, the word curriculum refers to an interaction process that includes an educational plan, educators, parents, children and community. The development of curriculum includes the development of a comprehensive educational plan which describes generally what should be learned and how that learning might best be facilitated. This educational plan must take the whole child (physical, mental, emotional and spiritual) into account.

This plan, as we have seen, is only a starting place. It is a set of generalizations about development and the releasing of human potential. It must then be specifically tailored to each community (indeed each person), and integrating into the process of life in that community. This integration demands dialogue, and will not happen at all unless a community development process is underway that facilitates conscious participation by community members, and particularly parents, in adapting the educational plan to their community's circumstances.

This process of community consultation, commitment and participation is as much a part of a wholistic curriculum as is the educational plan.

This is because what a wholistic curriculum can achieve, in the long run, is a transformation of the context within which human beings live out their lives in that place. Such a process will penetrate the very core of community life. It begins with children and their families, but as it develops, elders, community leaders, economic development enterprises, cultural events and many other dimensions of life in native communities will be drawn into the circle of activity.

The key to such a process is the sharing of a new, highly powerful, integrating vision of human possibility. This vision must be the foundation on which curriculum is built. The section of this paper dealing with the evaluation of the individual student discusses in more detail the role of a vision of human possibility in learning (the actualization of human potential).

5. **Sample Questions for Evaluating Curriculum**

(a) What types of interpersonal interaction go on in the school?

(i) among students (in the classroom, on the playground, in the hallways and lavatories);

(ii) between students and teachers, or teacher aides;

(iii) between students and administrators (e.g., principal)

(iv) between students and support staff (e.g., secretary, janitor);

(v) among teachers and teacher aides;

(vi) between teachers, teacher aides and administrators;

(vii) between teachers, teacher aides and support staff;

(viii) among support staff;

(ix) between the school population (students, teachers, teacher aides, administrators, support staff) and visitors to the school;

(b) What kind of people can be found in the school?

(i) students - which ages, cultural groups, academic levels;

(ii) teachers, teacher aides and administrator - which cultural groups? do they originate from the community in which they work?

(iii) support staff - which cultural groups? do they originate from the community in which they work?

(iv) elders, community members, parents - do they feel welcome in the school? how much time do they spend at the school?

(c) What is the role of each of these groups of people in the school?

(i) students;

(ii) teachers;

(iii) teacher aides;

(iv) administrators;

(v) support staff;

(vi) elders;

(vii) parents; and

(viii) other community members.

(d) How are decisions made in the school? How does the decision-making process reflect the way decisions are made in the rest of the community?

(e) How are decisions carried out and regulations enforced? How are those people responsible for enforcing regulations viewed? How are regulations enforced and behavior controlled in the rest of the community?

(f) What kinds of behavior are rewarded? How are they rewarded? How does this reward system compare with the reward system in the community in general?

(g) What is the relationship between the school and the other institutions in the community? Between the school and community members? What is the perceived role of the school? How does what goes on in school reflect significant events in the life of the community?

(h) What does the way the physical space is arranged say about what people should do, how they should interact, what their roles are, what the purpose of education is?

(i) What is the teacher in her capacity as a role model teaching? What is her philosophy of life and of education? What are her beliefs and moral values? How does she interact with other people? What is her perceived role in the classroom, in the school and in the community? How does she manage or control the behavior of the students?

(j) What are the current curriculum program and materials? Where did they come from ? Who developed them? What was the mandate of the curriculum developers? Which political and social constraints and philosophies were they operating under?

(k) What is the embedded educational philosophy of the current curriculum program and materials? What do they tell us about the nature of man? The process of learning? The purpose of education? How does this philosophy compare with the stated philosophy of the school? With the philosophy of the community in general?

(l) What is the role of the first language or dialect of the students and the community in the school?

(m) Do the curriculum materials come out of the lives of the students or are they from another context (way of life, culture)? Are they appropriate for native culture? How do they picture native people or people of a different culture than the dominant one in the society at large? Are the curriculum materials locally generated?

(n) Is the curriculum living; that is, is it on-going innovative, flexible, and controlled by the people who are using it? Or is it dead and just the mechanical implementation of an existing program?

EVALUATING THE PERSONNEL

The personnel of an educational institution are probably the component most crucial to its success. It is the people who bring the rest of the program to life, who can change a static program into a living curriculum.

1. The Teacher as Hidden Curriculum

The teacher as part of the hidden curriculum has already been discussed in the section of this paper dealing with evaluating the curriculum. The teacher's way of relating to students, other teachers, support staff, parents and other community members influences the student's view of himself and his community. Her values and beliefs influence her students' view of what is important. Her way of structuring classroom activities and managing student behavior tell the students a lot about how people in responsible positions exercise power over others. In other words, the process whereby teachers implement curriculum content is as important, or perhaps more important, than the subject matter being studied.

2. Connection with the Community

Another aspect of the staff of a school that must be evaluated is their connection to the rest of the community. One of the biggest problems with personnel in schools in native communities is their high turn-over rate. Because many of them, especially teachers and administrators, come from outside the community, they often have little commitment to that community. They experience a high degree of frustration because of the conditions found in most

schools in native communities and because of their lack of training to work under these conditions and in a culture different from their own.

The fact that there are cultural differences between the students and the teachers in most schools creates not only frustration for the teachers, but also an impediment to learning for the students. Recent research in this field[22] indicates that such largely unconscious behavior as body rhythm (e.g., the bobbing movement of the head), language use, a sense of timing, and the use of space have a profound effect on the learning atmosphere. Cross-cultural differences here cause a feeling of being out of sync, of somehow never quite connecting. Making connections between what is already known and the new information being received is a vital part of the learning process.

Students are also learning a great deal about themselves and their potential if they see that most of the people making important decisions in the school come from a culture and community other than their own. Any thorough assessment of an education institution's personnel must examine the role that various identifiable groups (e.g., identifiable on the basis of culture, age, sex, etc.) play in the school.

3. The Teacher as Curriculum Developer

Teaching personnel must also be evaluated in terms of their ability to develop and implement curriculum consistent with the learning needs of their students; i.e., curriculum that assists students to actualize their potential in all aspects (physical, mental, emotional, spiritual and volitional) of their lives. Most teachers coming out of North American teacher training institutions have been

taught how to deliver programs, but rarely how to develop programs which arise out of the lives of the students and the on-going life of the classroom. The teacher's role as curriculum developer is vital, especially so in native communities whose cultural basis is different from that of the textbooks, curriculum manuals, kits and resource materials available.

4. **Sample Questions for the Evaluation of Personnel**

In addition to the questions asked about personnel in the section of this paper dealing with the evaluation of the curriculum (see page 50), the following can be considered:

(a) Hiring

Who controls the hiring of personnel in the educational institutions? For which positions, if any, is hiring controlled locally? What provisions are made for input from community members about hiring? How are job descriptions and hiring guidelines established?

(b) Training

What academic training do members of the staff have? How well do the objectives of the training program compare with the actual exigencies of the job? Which types of life experiences do staff members have that will contribute to their ability to work successfully in native communities (e.g., cross-cultural experience)? Which personal qualities that contribute to effective teaching (e.g., honesty, altruism, authenticity, congruency, etc.) do staff members have?

(c) How well are personnel able to adapt curriculum programs to local needs or to develop new programs as necessary? Are staff members currently generating new curriculum using local resources and adapted to local conditions, or are they just delivering programs which have been brought into the community from outside it?

EVALUATING THE COMMUNITY CONTEXT

The community provides the context within which the school operates and the students live. Most of the influences shaping the lives of students come from this broader context. The values and processes embodies in school operations should be compatible with those of the community. This relationship between community and school must also be assessed in any meaningful wholistic evaluation process.

1. Participatory Community Research

Before an educational institution can be evaluated in terms of its compatibility with the community context, efforts must be made to determine what the community understands education to be and how it feels about the current system serving its members.

Since relatively little work has been done in terms of defining the principles and components of an educational system arising out of native culture, and because native communities differ so greatly in the specifics of their cultures, basic social research will need to be conducted in each community in which an educational evaluation is taking place. One such study was conducted in Lac La Matre, a Dene community in the Northwest Territories.(23) The findings of this study are being carefully studied by the local school board and school staff with the expressed intention of modifying curriculum and school practices so that they will conform more closely with the community context.

This type of research must be participatory in nature and must be open-ended enough so that it can be shaped by the community being studied.(24) Any type

of evaluation or research will have an effect on the thing being studied, but this type particularly so. Here especially evaluation becomes an integral link in a learning process that transforms those engaged in it.

The evaluation process can also have the opportunity to become informed by the community in which it is occurring and to contribute to the on-going understanding of community members of educational issues through community workshops conducted by the evaluation team.

2. **Counterpart Training**

Another important way for the evaluation process to become involved in the community context is through counterpart training. Counterpart training involves the selection and training of community members to work alongside members of the evaluation team. These individuals learn how to administer the screens and surveys used in the evaluation and assist in their interpretation. This approach to evaluation is extremely effective in increasing people's understanding of their children, the problems they may be experiencing, the administration of an educational system, and virtually all factors influencing success and failure in school.

Additionally, these people are then available to share their understandings with the rest of the community. Unlike most members of the evaluation team, they will remain in the community once the evaluation is completed. Often they become educational leaders in the community.

3. Evaluating Community Learning

The community context must also be evaluated in terms of the extent to which it helps its members learn. In other words, do the life patterns in the community help people grow and change or develop their potential? The following are sample questions that indicate some of the areas to be evaluated when assessing how the way of life in a community affects the learning of its members.

(a) Physical

Are the physical needs of the people in the community being met? Overcrowded housing, inadequate nutrition, ill health arising from poor medical services, inadequate sanitation, and the lack of basic health information - all these factors seriously affect the capacity of people to learn and develop. What facilities are there for recreation? Are they used by community members? Do people have meaningful work?

(b) Mental

Does the community value mental learning? Do community members spend time together discussing ideas? Are a variety of books available? Those factors which make for a healthy body, adequate housing, nutrition, exercise, health care, sanitation facilities and meaningful work, also facilitate mental learning and need to be taken into account here.

(c) Emotional

Do all members of the community (e.g., children, elders, women) have a meaningful, recognized role? Are individual differences valued? Is everyone cared for and given respect? Does the community have mechanisms for resolving differences, dealing with sorrow, celebrating significant events, controlling behavior that will harm members of the community? Do community members have meaningful work that allows them to maintain an adequate standard of living?

(d) Spiritual

Do community members hold values that are life-preserving? Does their way or relating to each other and the world around them demonstrate an appreciation for the inter-connectedness of all things including all the children of Mother Earth? Do community members understand and respect their spiritual traditions? Are there opportunities to develop and share spiritual understandings (e.g., ceremonies, church services)?

(e) Volitional

Do community members control their own institutions and services? Who makes decisions that affect community members? What mechanisms are there for community involvement in decision making and implemention? Does everyone have a voice in the things that affect them? Do community or individual projects get completed? Are people engaged in meaningful work?

4. Sample Questions for Evaluating the Community Context

Other questions that need to be asked when evaluating the community context within which the educational institution operates include the following:

(a) Power structure of the community

How are decisions made in the community? Who has input into the decision-making process? Which families and cultural groups are represented on decision-making bodies? Are certain groups or families represented more strongly on decision-making bodies than others?

(b) Funding

Where does the money to run the school come from? Who controls this money? What is the history of local versus exterior control of education in the community?

(c) Relationship with society at large

What is the relationship between the native community or the native segment of the population and the rest of society around it? (e.g., Is there a climate of racism?) What effect is this having on students, especially if the school is off the reserve, and on teachers who live outside of the native community?

THE EVALUATION TEAM

An evaluation team attempting a wholistic educational evaluation must consist of individuals with a wide variety of skills. Every attempt must be made to find individuals from the community being evaluated to form that team. Outsiders should be added to the team only when certain skills cannot be found locally, and these should be native people when possible.

The process of having these people come together from a wide variety of roles in the community to work on a common problem which affects the well-being of the entire community will be a catalyst for change in itself. The dynamics involved in having a group like this come together, establish a working procedure, consult together and develop recommendations for change will be a powerful agent for the formation of a core group of committed community leaders.

The evaluation team should consist of representatives from the following groups or with expertise in the following areas: (Note: an individual may fulfill the requirements of several categories.)

1. Local people with a knowledge of life as it is lived in the community:

    (a) children;

    (b) youth;

    (c) elders;

    (d) parents;

    (e) women;

    (f) school board members;

(g) health board members;

(h) band council members;

(i) alcohol program workers;

(j) spiritual leaders;

(k) school staff for the local community.

2. Applied anthropology, sociology, social psychology.

3. Public health.

4. Psychological testing.

5. Educational testing.

6. Physical environment (e.g., engineering, interior design, safety, architecture, aesthetics).

7. Curriculum development and pedagogy.

8. Data analysis and interpretation.

9. Group dynamics and organization.

10. Integrative thinking and writing (to pull contributions of various team members into a cohesive report).

CONCLUSION

This overview has defined a number of issues related to educational evaluation in native communities. The number and variety of evaluative instruments available for educational evaluation, especially individual testing, is tremendous. As pointed out in the discussion of screening instruments, the tools of the evaluation need to be selected with care to insure that they have been adequately adjusted to the culture of the community where the screens are to be conducted, and that they will provide the information desired.

Obviously, any attempt to assess all this information is a major undertaking, even in a relatively small community and school. Care needs to be taken to assure that the required information is gathered in such a manner that its validity is assured and that the integrity of the community, school and children is not violated.

Evaluations tend to generate massive amounts of statistical data that require interpretation and the exercise of judgement to assess the significance of the findings and to make recommendations for modifications to the system. Because evaluation includes judgements ("evaluate" - to place value on something), it is crucial to determine the inherent value system (or systems) of the various consumers and evaluators, and assure that there is agreement on the standards and values that will be used as a basis for the evaluation. This standard needs to be clearly articulated (preferabley in writing) at the outset of any evaluation process. The consultation required to produce agreement on evaluation standards will in and of itself constitute a form of introspective evaluation for the community.

The Four Worlds Development Project in its work with its pilot communities, is prepared to assist with two major processes involved in educational evaluation. The first wil focus on the selection and adaptation or the development of appropriate evaluation methods for particular situations. The second will discuss evaluation within the broader context of the wholistic approach to human and community transformation. It is essential that this latter perspective be maintained, for without this integrative approach the evaluation exercise could become an isolated operation with no significant effect on the community as a whole. This broader viewpoint will make consultation much more difficult and complex, but is a necessary part of the process.

The process of evaluation is one that is linked to all the other aspects of learning. To begin that process is to begin learning. It is inconceivable that such a process could go on without it producing some change. If the evaluation process is guided by the community within which it is taking place, it will become a powerful force for individual and societal transformation.

APPENDIX A

SAMPLE SCREENS, INVENTORIES AND DEVICES

The following is in no way a complete listing of available instruments. It is meant to provide a sample of instruments that have been used with some success with native populations.

1. **Instruments Which Measure Physical/Perceptual Development**

(a) Denver Development Screen

Provides information on perceptual, verbal and motor development from birth to age 6.

(b) Purdue Perceptual-Motor Survey

Screens school age children for those with a significant likelihood of perceptual and/or fine or gross motor coordination deficiencies. Also, screens for problems in orientation in space, eye-hand coordination, and body image.(25)

(c) Keystone Telebinocular Screens

Tests visual perception.

(d) Hearing Threshold Test or the Tympanometer

Can be used to test aural acuity.

2. Instruments Which Measure Language Development

Language and meaning-making are at the core of culture. Instruments which measure language development need to be culturally adapted. The following screens are widely used but have yet to be adapted for use in native communities:

(a) Test of Language Development (TOLD)

A wide-ranging screen of oral language abilities for younger children.

(b) Test of Adolescent Language (TOAL)

An extension of the TOLD for older children.

(c) Clinical Evaluation of Language Functioning (CELE)

Another screen which gives a gross picture of children's language abilities.

3. Instruments Which Measure Moral Development

Moral development is a highly culture-bound issue. Instruments designed to measure moral development, but not adjusted for native communities are:

(a) A Moral Judgment Measure Based on Piagetian Psychology (Lee, 1971)

Nine short stories representing conflict situations; for children 5-17; responses judged on the basis of Piaget's thesis or moral development.(26)

(b) Kohlberg Moral Judgement Measure (1958)

Nine situations on which children are scored according to which of six stages or moral judgement they predominantly employ in answering the questions.(27)

(c) Moral Dilemmas Scale (Bronfenbrenner, 1970)

A 30-item scale which measures one specific aspect of children's moral development, namely their tendency in conflict situations to choose peer-approved or adult-approved resolutions.(28)

4. **Instruments Which Measure Self-Concept**

Self-concept, an aspect of emotional and spiritual development, has been attempted to be measured by the following instruments:

(a) Who Am I? (Kunn and McPartland).(29)

(b) Self-Concept Measure for Use with Nursery School Children (Wattenbert and Clifford).(30)

(c) Academic Self-Image Scale (Barker-Lunn).(31)

(d) Culture-Free Test of Self-Concept (Battle) (Note: We question the possibility of any test being truly "culture-free".)

5. Instruments Which Assess Cognitive Style

The area of cognitive style is another culturally sensitive one, and caution is advised in using existing screening instruments in native communities. One existing instrument is:

(a) Guilford's Structure of Intellect (S.O.I.)

Describes one model of cognitive styles. Administration of this instrument is a very lengthy process.

6. Instruments Which Measure Learning Capacity

(a) Feuerstein's Learning Potential Assessment Device (L.P.A.D.)

Measures the child's potential for learning rather than what whe currently knows. Like Guilford's S.O.I., it requires a great deal of time and expertise to administer, and should therefore be used selectively.

7. Instruments Which Measure Learning and Teaching Styles

(a) Learning Styles Inventory (Dunn, Dunn & Price)

Can be used with children.(32)

(b) Personal Employment Preference Scale (Dunn, Dunn & Price)

Can be used with adults.[32]

8. Compound Assessment

One instrument which deserves serious consideration is the System of Multicultural Pluralistic Assessment S.O.M.P.A. (Mercer and Lewis).[33] This device is actually a set of several instruments: a medical model, social systems model and pluralistic model. Through a series of processes including a parent interview, this device collects information on:

(a) physical dexterity;
(b) visual acuity;
(c) auditory acuity;
(d) health history;
(e) adaptive behavior;
(f) school functioning level;
(g) estimated learning potential; and
(h) relevant sociocultural factors.

This is obviously an extensive assessment procedure. Parts of it, for example the Bender-Gestalt Visual Motor Test and MISC-P or WPPSI (measures of cognitive development), must be administered and interpreted by psychological professionals. Other components, such as the parent interview and physical dexterity tasks, could be managed by carefully trained non-professionals such as community members. Methods described for the interpretation of the collected

data include procedures for establishing norms based on the particular population in question.

S.O.M.P.A.'s value lies in its adaptability to various sociocultural groups, the broad spectrum of characteristics it screens, the correlative nature of its interpretive process, and its suitability to the type of community-based process encouraged by the Four Worlds Development Project. Further research and development will still be needed to adapt the S.O.M.P.A. to the cultural realities of native communities.

APPENDIX B

SAMPLE GUIDELINE FOR EVALUATING CURRICULUM MATERIALS

EXAMPLE 1

1. List title, author, publisher and date.

2. List qualifications and background of author: Is the author a Native American, did the author consult with Indian people? Has the author had personal experiences with native people?

3. Evaluate references to Native Americans (Indians), or lack of references to Native Americans as if they did not exist in history. The following are points to look for:

   (a) Blackout

   Ignoring natives and their cultures as if they did not exist in history or the present, often seen in history books.

   (b) De-tribalization

   Failure to recognize tribal differences and the use of the general term Indian, as if all native peoples were and are alike.

(c) Stereotyping

Judging all natives by some example as seen by early frontiersmen or as depicted by Hollywood, e.g., lazy, dirty, blood-thirsty.

(d) Denigrating Terms

Use of insulting names such as savage, pagan, squaw, buck, heathen.

(e) Negative Tone

If every reference to native people is about what they did not have and did not do (e.g., natives did not have knowledge of the wheel, natives did not make use of the land) without any mention of the contributions from and positive behaviors of native people.

(f) Subtle Bias

No obvious stereotyping and denigrating terms, only thinly veiled prejudice. A first grade primer may employ subtle bias by presenting the white middle class family as an ideal.

(g) White Man's Burden Syndrome

Exemplified by Kipling's poem of the same name (e.g., that it is the white man's duty to "enlighten" and "improve" the heathen, dark races of the world, in spite of the inevitable ingratitude of these barbarians).

(h) Viewpoint

Is all material presented from the white man's view or are both sides of an event or issue presented objectively?

(i) Condescension and Ethocentricity

Belittling comparisons (e.g., natives did not live in houses like white people; natives made crude shelters.)

(j) Negative Image

Does the material present information that would make a native student feel ashamed and inferior or are his culture and heritage presented as something he can be proud of?

(k) Whitewash

Does the material dignify the injustices in native-white relationships by such terms as "manifest destiny", "the right of discovery" and the "need to Christianize the heathen"?

These guidelines were developed by:

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SAMPLE GUIDELINES FOR EVALUATING CURRICULUM MATERIALS

EXAMPLE 2

Guidelines for the Evaluation of Indian Materials for Adults

Truth and art are two criteria of evaluation which can be applied to all types of material. Truth includes accurate sources and treatment of material and qualified authorship. Art is concerned with the quality of presentation, creative power, sincerity, originality, and style. Although both of these criteria are embodied in the guidelines listed below, greater emphasis is given to truth because of the misrepresentation of the American Indian in much of the materials existing today.

The first three guidelines are basic principles. The additional guidelines reinforce the basic ones. It is hoped that the following statement will be valuable and useful to publishers and producers of adult materials as well as to librarians working with adults.

(The following is adapted from: American Indians: An Annotated Bibliography of Selected Library Resources, 970, University of Minnesota: Library Services Institute for Minnesota Indians.)

Basic

1. Is the image of the Indian one of a real human being, with strengths and weaknesses, acting in response to his own times? If material is fictional, are the characters realistically developed? Are situations true or possibly true to Indian ways of life?

2. Does the material present both sides of the event, issue, problem, or other concern? Is comparable information presented more effectively in other material?

3. Are the contributions of American Indian culture to Western civilization given rightful and accurate representation and is this culture evaluated in terms of its own values and attitudes rather than in terms of those of another culture?

Additional

1. What are the author's or producer's qualifications to write or produce material dealing with American Indians?

2. Does the material contain factual errors or misleading information?

3. Does the material perpetuate stereotypes or myths about the American Indian? Does the material show an obvious or subtle bias?

4. Do illustrations authentically depict Indian ways of life?

5. How might the material affect an Indian person's image of himself?

6. Would the material help an Indian identify with and be proud of his heritage?

7. Does the material express Indian values and might it help an American Indian to reconcile his own values with conflicting ones?

8. Does the material present a positive or negative image of the American Indian and how might the material affect the non-Indian's image of Indian people?

9. Are loaded words (i.e., buck, squaw, red skin, etc.) used in such a way as to be needlessly offensive, insensitive, or inappropriate?

10. Does the material contain much of value but require additional information to make it more relevant or useful?

The average librarian may experience some difficulty in applying all of these guidelines, since many people are themselves not fully aware of Indian values and cultural contributions and may not yet have developed a full sensibility to materials which either offend or denigrate the Americn Indian. Therefore, it is important to investigate if the material has been reviewed or evaluated by a person who is knowledgeable about American Indians as well as about other aspects of the subject of the material.

These guidelines were developed by:

ASD Subcommittee on Indian Materials
Edith Adamson
William Asp
Jo Ann Bierman
Virgil Massman
June Smith, Chairman

For approval by ASD Board,
Midwinter Meeting, 1971.

FOOTNOTES

1. A detailed description of the historic meeting held by these elders, spiritual leaders and professionals and of the strategies for change arrived at during the course of that meeting can be found in the Overview Paper of the Four Worlds Development Project. It is available from:

   The Four Worlds Development Project,
   Faculty of Education,
   The University of Lethbridge,
   4401 University Drive,
   Lethbridge, Alberta.
   T1K 3M4

   Phone: (403) 329-2184/2435

2. This model is presented in Community Development: Learning and Action by Hayden Roberts, University of Toronto Press, Toronto, 1979. See especially pp. 34-36.

3. Toffler, Alvin. The Third Wave, William Morrow and Company, Inc., New York, 1980. See especially pp. 62-76.

4. A tentative beginning at the articulation of such a view of man can be found in the Overview Paper of the Four Worlds Development Project (see footnote 1 above).

5. This paper focuses on the contribution educational evaluation can make to the prevention of alcohol and drug abuse. Many other types of community or institutional evaluation can also be undertaken in the community development process that must be undertaken if the root causes of alcohol and drug abuse are to be addressed. An obvious example is the evaluation of the health system.

Another example is the evaluation of the alcohol and drug treatment and prevention services available to that community. A comprehensive handbook for the evaluation of alcohol and drug abuse programs and their clients is:

> Handbook for Prevention Evaluation: Prevention Evaluation Guidelines, John F. French and Nancy J. Kaufman (ed.) published by the National Institute on Drug Abuse, U.S. Department of Health and Human Services, Rockville, Maryland.

6. Indian Conditions: A Survey, published by the Department of Indian Affairs and Northern Development, Ottawa, 1980, pp. 49-57.

7. Pearce, Joseph Chilton. Magical Child, Bantam Books, Toronto, 1977.

8. Capra, Fritjof. The Turning Point, Bantam Books, Toronto, 1982.

9. This issue is also explored in the Four Worlds Development Project Overview Paper (see footnote 1 above).

10. An example of a study comparing the scores of Cree and Ojibway Children in Ontario with the standardized norms of the WISC (Weckster Intelligence Scale for Children) can be found in "Northwestern Ontario Indian Childrens' (sic) Scores on the WISC in Relation to the Normative Population", a Master of Arts thesis submitted to Lakehead University by Joan St. John. This study presents evidence that different cultures will have different norms for the same test. It also discusses some of the factors that may influence the predictable differences that can be found in the scores of native children compared with

the normative population (white) for the WISC test. The effect of first language on test scores and the feasibility of culture-free tests are also explored.

11. Much interesting research has been conducted which assesses physical differences between races and the tendency towards particular health problems which may occur as a result. Some articles which discuss these factors are:

"Child Sickness Among Canadian Indians", Public Health Report, July, 1981, p. 342.

Slocumb, J.C. and Kunita, S.J.: "Factors Affecting Material Mortality and Morbidity Among American Indians", Public Health Representatives: 92:349-56 (July-August, 1977).

Stewart, T. et al.: "Navajo Health Consumer Survey", Med Care: 19(3)281-96 (March, 1981).

12. The entire issue surrounding the breast-feeding versus the bottle-feeding of infants has been widely discussed in a variety of publications and forums. Aside from the particular concern cited here, related studies have shown that breast-feeding is an effective means of reducing infant deaths, particularly in high risk situations (Schaefer and Spady. "Changing trends in Infant Feeding patterns in the N.W.T. 1973-1979", Canadian Journal of Public Health, September/October, 1982); and, a significantly earlier start of walking among breast-fed infants (ibid). A report prepared for UNICEF (Reuter, January 3, 1983) states that bottle-fed babies are between three to five times more likely to suffer

malnutrition than breast-fed babies. More information related to this important issue is available from the Lac Leche League (branches in most cities) and the "Nutrition Newsletter" published by Health and Welfare Canada.

See also: "Breast-Feeding for Indian Infant Protects Against Infection", Canadian Medical Association Journal, 1979, p. 295.

13. The alarming statistics related to Indian health care can be found in the Indian and Northern Affairs Canada publication, Indian Conditions: A Survey (see footnote 5 above). Noted in this report is the "poorer access to medical facilities".

14. The connection between poor nutrition and health, and the body's ability to resist disease has been recognized for hundreds of years. Current studies being conducted by Dr. G.L. Higgins and associates of the University of Alberta Department of Family practices and the Royal Alexander Hospital (Edmonton) are further identifying the connections between income, nutrition, disease and life style.

15. Condon, W. and Louis Sander. "Neonate Movement is Synchronized with Adult Speech: Interactional Participation and Language Acquisition", Science, 11 January 1974, pp. 99-101.

16. Some examples of work done in this area of research are:

(a) Dunn, R. and Dunn, K.: Teaching Students through their Individual Learning Styles, Prentice Hall Co., Reston, Va., 1978.

(b) Hunt, D.E.: Matching Models in Education: The Coordination of Teaching Methods with Student Characteristics, Ontario Institute for Studies in Education, Toronto, 1971.

17. The notion that children from homes which use a non-standard dialect of English are verbally deprived and that such dialects are grammatcially and semantically inferior has been refuted in the now classic work of W. Labov, "The Logic of Nonstandard English" which was published in Georgetown Monographs on Language and Linguistics, Vol. 22, 1969, pp. 1-31.

18. This report was published by the Department of Indian Affairs and Northern Development, Ottawa, 1982 and access to it is available through the Kipohtakaw Education Centre, P.O. Box 510, Morinville, Alberta, T0G 1P0.

19. Wurtman, R.J.: "The Effects of Light on the Human Body", Scientific American, 1975, 233(1), 68-77.

Wurtman, P.J. and Neer, R.M.: "Good light and bad", New England Journal of Medicine, 1970, 282, 394-395.

20. An example of a major work exploring the effects of the hidden curriculum of preschool centres is Valerie Suransky's The Erosion of Childhood, The University of Chicago Press, Chicago, 1982.

21. See footnote 6 above.

22. See Barnhardt, et al.: Anthropology and Educational Administration, Impresora Sahuaro, Tucson, Arizona, 1979.

Barnhardt, P.: Cross Cultural Issues in Alaska Education, (Vol, I and II), The University of Alaska, Fairbanks, Alaska, 1977 and 1982 respectively.

Hall, E.T.: The Dance of Life, Anchor Press/Doubleday, New York, 1983.

23. The process and results of this research projects are described in a Ph.D. thesis currently being written by Michael Bopp. Inquiries can be addressed to him through the Four Worlds Development Project office (see footnote 1 above).

24. A valuable reference on participatory research is the following:

Tobias, K.J.: Participatory Research: A Handbook for Fieldworkers, International Council for Adult Education, 29 Prince Arthur Avenue, Toronto, Ontario, M5R 1B2, 1981.

25. The Purdue Perceptual-Motor Survey is available from: Charles E. Merrill Publishing Company, 1300 Alum Creek Drive, Columbus, Ohio, 43216.

26. Lee, L.C.: "The Concomitant Development of Cognitive and Moral Modes of Thought: A Test of Selected Deductions from Piaget's Theory", Genetic Psychology Monographs, 83, 93-146 (1971).

27. Porter, N.: How to Access the Moral Reasoning of Students, The Ontario Institute of Studies in Education, Toronto, Ontario, 1972. This is the Kohlberg Moral Judgement Measure.

28. Brofenbrenner's "Moral Dilemmas Scale" is reproduced in: Education Research in Classrooms and Schools by Louis Cohen published by Harper & Row, London.

29. Kuhn, M.H. and McPartland, T.S.: "An Empirical Investigation of Self-Attitutes", American Sociological Review: 19, 68-76 (1954).

30. Wattenberg, W.W. and Clifford, C.: "Relation of Self-Concepts to Beginning Achievement in Reading", Child Development: 35, 461-467 (1964).

31. Barker-Lunn, J.C.: "Streaming in the Primary School", Slough, N.F.E.R., 1970, p. 15.

32. The Learning Styles Inventory and the Personal Employment Preference Scale is available from: Price Systems Inc., P.O. Box 3067, Lawrence, Kansas.

33. The System of Multicultural Pluralistic Assessment is available from: Guidance Centre, Faculty of Education, University of Toronto, 252 Bloor Street West, Toronto, Ontario, M5S 2Y3. A language sampling instrument (Tyack) is also available from this source.